

AMENDMENTS TO THE CLAIMS

Please amend claims 1-3, 7, 10, 14 and 17 as follows.

Please cancel claims 6 and 16 as follows.

1. (Currently amended) An apparatus, comprising:
a Micro-electromechanical System (MEMS) module including at least one MEMS device and a cap covering the at least one MEMS device;
at least one contact mounted to a bottom of the MEMS module; ~~and~~
at least one via to pass vertically through the cap to electrically couple the at least one MEMS device to the contact; and
a trace ring coupled to the at least one MEMS device, wherein one of an input terminal or an output terminal for the at least one MEMS device coupled to the trace ring.
2. (Currently amended) The apparatus of claim 1 wherein the at least one MEMS device comprises a MEMS Radio Frequency (RF) RF switch array including at least one switch.
3. (Currently amended) The apparatus of claim 1 wherein the MEMS module includes ~~an~~ the input terminal, ~~an~~ the output terminal, and an actuation terminal each electrically coupled to the at least one MEMS device.
4. (Original) The apparatus of claim 3 wherein the input terminal is electrically coupled to a first via of the at least one via, the output terminal is electrically coupled to a second via

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of the at least one via, and the actuation terminal is electrically coupled to a third via of the at least one via.

5. (Original) The apparatus of claim 4 wherein the first via is electrically coupled to the first contact, the second via is electrically coupled to a second contact mounted to the bottom of the MEMS module, and the third via is electrically coupled to a third contact mounted to the bottom of the MEMS module.

6. (Cancelled)

7. (Currently amended) The apparatus of claim 6 1, wherein the trace ring surrounds at least a portion of the at least one MEMS device to allow a signal to transit the MEMS module using a second via of the at least one via without crossing the trace ring.

8. (Previously presented) The apparatus of claim 1, further comprising a seal ring to couple the cap to a section of the MEMS module, wherein the section of the MEMS module includes the at least one MEMS device.

9. (Original) The apparatus of claim 1, further comprising a printed circuit board (PCB) coupled to the contact.

10. (Currently amended) A Micro-electromechanical System (MEMS) Radio Frequency (RF) switch module, comprising:

a MEMS die including an RF switch array;
a cap section coupled to the MEMS die, the cap section including at least one vertical
via to pass through the cap section; and
a trace ring coupled to the RF switch array, wherein one of an input terminal or an
output terminal for the RF switch array coupled to the trace ring.

11. (Original) The MEMS RF switch module of claim 10 wherein the cap section is
coupled to the MEMS die by a seal ring.

12. (Original) The MEMS RF switch module of claim 10 wherein the cap section
comprises Silicon.

13. (Original) The MEMS RF switch module of claim 10 wherein the cap section
comprises a ceramic material.

14. (Currently amended) The MEMS RF switch module of claim 10 wherein the MEMS
die comprises:

~~an~~ the input terminal electrically coupled to the RF switch array and to a first vertical
via of the at least one vertical via;

~~an~~ the output terminal electrically coupled to the RF switch array and to a second
vertical via of the at least one vertical via; and

an actuation terminal electrically coupled to the RF switch array and to a third vertical
via of the at least one vertical via.

15. (Original) The MEMS RF switch module of claim 14 wherein the MEMS die comprises a second RF switch array electrically coupled to a second input terminal and to a second actuation terminal, the second RF switch array electrically coupled to the output terminal.

16. (Cancelled)

17. (Currently amended) The MEMS RF switch module of claim 10, ~~16 wherein the trace ring surrounds at least a portion of the RF switch array to allow a signal to enter and exit the MEMS RF switch module by way of a second vertical via of the at least one vertical via without crossing the trace ring.~~

further comprising:

a first via of the at least one via coupled to the trace ring; and

a second via of the at least one via electrically coupled to the RF switch array,

signal to transit an RF switch of the RF switch array using the first and second vias without crossing the trace ring.

18. (Original) The MEMS RF switch module of claim 10, further comprising a printed circuit board (PCB) electrically coupled to the RF switch array by way of the at least one vertical via.

Claims 19-26 (Cancelled).